

REMARKS

Claims 1-26 are now pending in this application; claims 27-29 are canceled herein.

The Examiner has rejected claims 7-8 under 35 U.S.C. 112, second paragraph, as being indefinite for lack of a proper antecedent basis. Claims 7-8 and 15-16 are amended herein to correct this oversight; no new matter is introduced, and the scope of the claims is unchanged. In view of this amendment, the Applicants respectfully request the Examiner's reconsideration of the rejection of claims 7-8 under 35 U.S.C. 112, second paragraph.

The Examiner has rejected claims 1-6 under 35 U.S.C. 102(e) as being anticipated by Herz et al. (USP 6,088,722, hereinafter Herz). The Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-6 depend, specifically recites a recommendation system that receives at least *two sets* of profile data, and generates a weighted sum of corresponding records from *each of the sets* to generate a single combined set of profile data.

Herz teaches a conventional recommendation system wherein multiple preferences of a user are contained in a *single set* of user profile data. This single set of profile data is updated based on both active and passive feedback, whereas in the Applicants' preferred embodiment, one set of profile data corresponds to active feedback, and another set of profile data corresponds to passive feedback. Herz describes various methods of updating/adjusting a customer profile at column 14, line 1, through column 15, line 61. In Herz, as in other conventional systems, the user's initial preferences are continually adjusted by monitoring the user's actual behavior over time. At any point in time, each customer is represented by a single profile.

In the Applicants' invention, two or more sets of profile data are maintained, so that the values in each set are not affected by the values in the other sets. That is, by maintaining two separate sets of profile data, for example, active preferences do not get 'distorted' by passive preferences. The following example is presented to illustrate the different effects that are produced by maintaining multiple sets of profile data, compared

to the conventional scheme of maintaining a single set of profile data. This example uses the paradigm of active and passive feedback, although the invention is not limited to these two types of feedback, and can include, for example, different types of active feedback to produce different sets of user profiles.

A user may express an active preference for Tom Cruise. If, however, the user does not have the opportunity to watch a Tom Cruise movie for an extended period, due to program conflicts, the user's personal or business schedule, other preferences, and so on, the 'passive' feedback of both the Applicants' invention and the conventional recommendation system would infer that the user does not prefer Tom Cruise.

In like manner, a user may express a dislike for cartoons, but "The Flintstones" may be scheduled between two programs that the user regularly views, and nothing more appealing may be available in this time slot. In this case, the 'passive' feedback of both the Applicants' invention and the convention system would infer that the user prefers cartoons.

In a conventional system, such as Herz, the continued inopportunity to watch a Tom Cruise movie will continue to diminish the effect of the user having initially expressed that he/she prefers Tom Cruise, and the happenstance viewing of The Flintstones will diminish the effect of the user having expressly stated that he/she does not prefer cartoons. Over time, Herz's algorithm will stabilize at the value determined by the passive feedback, because successive averaging will continually diminish the impact of the user's initial expressly stated preference. Eventually, the conventional system might even recommend a cartoon over a Tom Cruise movie, because of the continued passive feedback.

The Applicants recognized that the expressed preferences and implied preferences should be combined in some manner when each recommendation is to be made, but also recognized that the expressed preferences and implied preferences need to be kept independent, because one should not affect the decision-weight given the other. In the above example, the fact that the user did not have an opportunity to watch the Tom Cruise movies, or happened to have watched something else when a Tom Cruise movie was available, does not, per se, indicate that the user does not have a preference for Tom Cruise.

In the Applicants' system, the passive feedback affects only the set of profile data associated with the passive feedback, and the active feedback affects only the set of profile data associated with the active feedback. Thus, over time, the passive set will indicate a preference for cartoons and a non-preference for Tom Cruise, but, because two separate sets are maintained, the active set will continue to reflect a preference for Tom Cruise and a non-preference for cartoons. The weighting factor given to each of these sets will determine the overall profile data used to make each recommendation, but the user's expressed preference for Tom Cruise will not be diminished over time merely because the user happened not to choose, or was unable to watch, Tom Cruise movies when they became available.

Because Herz does not teach maintaining at least two sets of profile data, as specifically claimed by the Applicants, the Applicants respectfully request the Examiner's reconsideration of the rejection of claims 1-6 under 35 U.S.C. 102(e) as being anticipated by Herz.

The Examiner has rejected claims 1-26 under 35 U.S.C. 102(e) as being anticipated by Bergh et al. (USP 6,112,186, hereinafter Bergh). The Applicants respectfully traverse this rejection.

The Applicants teach and claim a recommendation system that uses at least two sets of profile data from a *single user* to form a weighted sum of the records of each set to form a combined set of profile data. Claim 1, upon which claims 2-8 depend, recites "each of said sets ... of *said user*"; claim 9, upon which claims 10-17 depend, recites "two sets of profile data ... of *a user*"; claim 18, upon which claims 19-20 depend, recites "said sets of profile data including ... indications by *a user*"; and claim 21, upon which claims 22-26 depend, recites "said sets of profile data including ... express indication by *a user* ... further including ... ratings provided by *said user*".

Bergh teaches forming the weighted average of profiles of *multiple users*. Bergh is silent with regard to forming a weighted average of records of sets of profiles of a *single user*, as specifically claimed in each of the independent claims 1, 9, 18, and 21.

Because Bergh does not teach forming a weighted sum of the records of each set of at least two sets of profile data of a user, as specifically claimed by the Applicants, the

Applicants respectfully request the Examiner's reconsideration of the rejection of claims 1-26 under 35 U.S.C. 102(e) as being anticipated by Bergh.

In view of the foregoing, the Applicants respectfully request that the Examiner withdraw the rejections of record, allow all the pending claims, and find the present application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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